

Flood Protection Corridor Program

Project Evaluation Criteria

I. Introduction

Grant funds under the Flood Protection Corridor Program (FPCP) of the Costa Machado Water Act of 2000 (Proposition 13) are available to local public agencies and nonprofit organizations from the Department of Water Resources. Funds will be used to pursue FPCP goals, which are to provide “for the protection, creation, and enhancement of flood protection corridors through all of the following actions:

“(1) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors and floodplains while preserving or enhancing the agricultural use of the real property.

“(2) Setting back existing flood control levees and, in conjunction with undertaking those setbacks, strengthening or modifying existing levees.

“(3) Acquiring interests in real property from willing sellers located in a floodplain that can not reasonably be made safe from future flooding.

“(4) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors while preserving or enhancing the wildlife value of the real property.”

-- [*Water Code, Chapter 5, Article 2.5, Section 79037(b)*]

The following information constitutes the basis for determining whether a proposed project meets the legal criteria for funding under the Flood Protection Corridor Program and for evaluating the proposal to determine its priority in competition with all concurrent proposals. Proposals qualified under Section III of these criteria will be placed on one of two priority lists. If the proposal serves a flood protection need that is a high priority with the Department of Water Resources (other than through this Program) and it also rates a high priority *either* with the Department of Conservation for purposes of preserving agricultural land under the California Farmland Conservancy Program, *or* with the Department of Fish and Game for purposes of wildlife habitat or restoration, it will be placed on the “A List”. All other qualified projects will be placed on the “B List”. “A List” projects will be funded first, and when all “A List” projects have been funded to the Department’s stated limit, “B List” projects will be funded.

II. General Information

Project Name: Reclamation District 2107 Floodway Protection, Eco-Restoration and Agricultural Preservation Project

Project Location: Latitude – approx. 37° 46': Longitude - approx. 121° 22' 18"; San Joaquin County Assessor Map 239-03 and –04; Parcel Nos. 239-040-04, 239-040-07 and 239-030-09 County: San Joaquin

Name and address of sponsoring agency or non-profit organization: Reclamation District No. 2107, 311 East Main Street, Suite 504, Stockton, CA 95202

Name of Project Manager (contact): Mr. Robert Brown, RD 2107 Trustee

Phone Number: (209) 234-1500 E-mail Address: rbrown@www.brown-sand.com

Grant Request Amount: \$5,000,000

Project Objective(s): Briefly describe your project and explain how it will advance FPCP goals. Please also include a detailed map of the immediate project site and another that shows its location within your geographical area.

Project Description

The project includes restoration of approximately 240 acres of land as 10-year floodplain adjacent the San Joaquin River near the Paradise Cut overflow weir. It also includes preservation of approximately 165 acres of land in current agricultural use and installation of new setback levee providing improved flood protection to a current estimated resident population of 63 and a transient population of 120, and an approximate one-mile section each of two active railroad alignments and Interstate Highway 5, as well as two sets of 110 KV electrical transmission towers. In addition,

Eco-Restoration components include creation of shaded riverine aquatic habitat along the degraded San Joaquin River levee, and improvement of a small lake habitat within the project area.

Geographical Location Map and Immediate Project Location Map

The location of the proposed grant project is shown geographically on Figure 1. The immediate project location and a general aerial view are shown on Figure 2. Figures 3 through 5 show various informational photos of the current site, including land and waterway features.

Advancement of FPCP Goals

The proposed Reclamation District No. 2107 Floodway Protection, Eco-Restoration and Agricultural Preservation Project will advance the FPCP goals by:

1. Acquiring easement in real property in flood protection corridor while preserving agricultural use and protection/enhancement of wildlife value of the real property.
2. Setting back existing flood control levees and modifying existing levees.
3. Enhancing the habitat value of existing lake habitat.
4. Creation of shaded riverine aquatic habitat on the degraded levee.

Project Manager

Title

Date

III. Minimum Qualifications

Project proposals that do not meet the minimum qualifications will not be accepted.

- A. √ The project proposes to use any granted funds for protection, creation, and enhancement of flood protection corridors *[Water Code Section 79037(b)]*.
- B. √ A local public agency, a non-profit organization, or a joint venture of local public agencies, non-profit organizations, or both proposes the project *[Water Code Section 79037(a)]*.
- C. √ The project will use the California Conservation Corps or a community conservation corps whenever feasible *[Water Code Section 79038(b)]*.
- D. N/A If it is proposed to acquire property in fee to protect or enhance flood protection corridors and floodplains while preserving or enhancing agricultural use, the proponent has considered and documented all practical alternatives to acquisition of fee interest *[Water Code Section 79039(a)]*.
- E. √ Holders of property interests proposed to be acquired are willing to sell them *[Water Code Section 79040]*.
- F. √ If it is proposed to acquire property interests, the proposal describes how a plan will be developed that evaluates and minimizes the impact on adjacent landowners prior to such acquisition and evaluates the impact on the following *[Water Code Section 79041]*:
 - ▶ Floodwaters including water surface elevations and flow velocities
 - ▶ The structural integrity of affected levees
 - ▶ Diversion facilities
 - ▶ Customary agricultural husbandry practices
 - ▶ Timber extraction operations

The proposal must also describe maintenance required for a) the acquired property, b) any facilities that are to be constructed or altered.

- G. √ The project site is located at least partially in one of the following:
 - 1. A Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA), or
 - 2. An area that would be inundated if the project were completed and an adjacent FEMA SFHA were inundated, or
 - 3. A FEMA SFHA, which is determined by using the detailed methods identified in FEMA Publication 37, published in January 1995, titled "Flood Insurance Study Guidelines and Specifications for Study Contractors", or

4. A floodplain designated by The Reclamation Board under Water Code Section 8402(f) [Title 23, California Code of Regulations, Division 2, Section 497.5(a)], or a
5. Locally designated Flood Hazard Area, with credible hydrologic data to support designation of at least one in 100 annual probability of flood risk. This is applicable to locations without levees, or where existing levees can be set back, breached, or removed. In the latter case, levee setbacks, removal, or breaching to allow inundation of the floodplain should be part of the project.

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

1. Describe the existing and potential urban development at the site and the nature of the flood risk.

With the exception of a few homes on the levee and a few nearby homes that will be protected by the setback levee, the proposed project area has no other urban development at this time, and no future development has been proposed. Due to the project location immediately adjacent the San Joaquin River stream channel and floodway, the nature of flood risk to the area is due to future flood flows exceeding the effective-local design capacity of the river.

2. How often has flooding occurred historically?

Documented historic flooding of the project area and vicinity has occurred three times including 1938, 1950, and most recently in 1997.

3. Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and other infrastructure, and agriculture.

Improved flood protection will reduce the risk of flood damage, which, in the 1997 flood event resulted in over \$14 million in damages to home/farm structures (including areas south of Paine Slough – not addressed by this project), \$3 million in crop damage, and another \$3 million in utility, rail line and business damage. The area which would benefit from the project includes: the community of Mossdale, including 21 private residences, 56 commercial structures and one aggregate business operation; an approximate one-mile section of an active Union Pacific Railroad line and an approximate one and one-quarter mile section of an active Southern Pacific Railroad line; an approximate one-mile section of Interstate Highway 5; various electrical transmission towers; and over 6,000 acres of available agricultural area. The resident population, estimated at 63 and the transient population, estimated at 120, would benefit from this project.

B. Flood damage reduction benefits of the project (100)

1. Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained?

The project provides for transitory storage of floodwaters. There is no established storage need for the community surrounding the proposed project site. The total estimated amount of storage based on a credible 10-year AEP and conceptual

grade and flow lines is approximately 1,500 acre-feet. Detention time would be dependent on related hydrologic conditions including the flood stage of the San Joaquin River and Paradise Cut channel. The theoretical detention time, assuming an approximate one-week continuous drop in channel stage, would be approximately 22 days. A gravity drainage structure would allow a controlled release of the detained flood waters during this time period.

2. Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.)

The project includes several structural and non-structural elements. The structural elements include:

- *Approximate 0.9 mile setback levee*
- *Approximate 0.5 mile levee reinforcement and rock slope-protection*
- *One concrete/CMP gravity drainage structure*
- *Three rock slope-protected degrade weirs*

The non-structural elements include:

- *Acquisition of flood easement for 240-acres of current agricultural land*
- *Provision of transitory storage of flood flows*

3. By what methods and by how much dollar value will the project decrease expected average annual flood damages?

There is evidence that the historical floods of 1938, 1950, and most recently in 1997 were the results of levee failures and not overtopping. A more reliable levee system may have avoided these failures. The flood of record before 1938 is uncertain, so any calculations should only include floods following this date. Within the next 60 years following 1938, the levee system failed twice, for an average failure of once every 30 years. Accepting the documented total damage in 1997 of approximately \$20 million and assuming a similar level of damage occurred in 1950, this would result in an average annual damage of \$20 million/30 years, or \$667,000 per year.

4. How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?

The project provides for significant beneficial effects from potential flood impacts to Reclamation District 2107 and Stewart Tract (Reclamation District 2062) while having minimal effect on the hydrologic and hydraulic conditions in the San Joaquin River and the Paradise Cut channel. Transitory storage, as noted in

B.1.above, is approximately 1,500 acre-feet (10 year AEP). Total daily volume of floodwater is estimated at 85,000 acre-feet (10-year AEP) and the transitory storage volume is approximately 1.8 percent of the total daily flow volume.

- a) Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life?

The project will reduce the potential for flood impact to RD 2107 and the remainder of Stewart Tract, due to the more dependable setback levee to be constructed. However, the project will only reduce the magnitude of the flood flow to the adjacent and downstream properties to the extent that peak flows will be diverted into the provided transitory storage area.

- b) What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life?

The project will have a significant beneficial affect on adjacent water surface elevations during initial flood stages in the San Joaquin River and Paradise Cut. Assuming a 10-year AEP flood event, the project area will completely flood during the initial 24-hour of flood stage of approximately 25 feet mean sea level (msl). The San Joaquin River stage, in the project vicinity, is expected to remain an estimated 0.5 to 1 foot below the normal flood stage. This effect will diminish as the project site flood level approaches the river flood stage.

- c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life?

Flow velocities in the San Joaquin River downstream of the project site will have an estimated maximum drop of 4.6% during the initial 24-hour flood stage. As noted for river stage in Item b., the related velocity reduction will diminish to zero as the project site flood level approaches the river flood stage.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties.

Inundation of the floodplain area will be restored for flood events with a 10-year AEP or greater. Inundation will occur through several degraded levee sections placed along the San Joaquin River. Some sediment transport will occur although the flood water will have a flow direction perpendicular to the natural river flow direction. Flood management of adjacent properties will remain unchanged, due to the provided setback levee.

2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.).

Upstream and downstream hydraulic effects, including sediment transport, would occur if the proposed project was implemented. As noted in IV.A.2., historic flooding of the project area and vicinity has occurred three times, including 1938, 1950, and 1997. The most recent flood event, 1997, resulted in the inundation of the entire approximate 5,800 acres of Stewart Tract. Completion of the proposed project would provide improved flood protection to the majority of Stewart Tract. Improved protection would be provided by the proposed setback levee as shown in Figure 6. A cross-sectional view of the proposed setback levee is shown on Figure 7. This same improvement would result in the potential loss of approximately 5,800 acres of additional inundation area. Assuming that no other levee-breach occurs on other levee sections, the resulting flood flow in the San Joaquin River and Paradise Cut would be greater. The total estimated amount of storage based on a 10-year AEP is approximately 115,000 acre-feet. This volume is approximately 135 percent of the daily 10-year AEP flood flow.

The loss of flood storage should not be viewed as a negative-effect since the objective of the project is to provide "improved flood protection" to the balance of RD 2107 and to Stewart Tract. The proposed project does not increase the height of San Joaquin River levees, and therefore does not increase the AEP level of protection for the balance of RD 2107 or for Stewart Tract area. Rather, it increases the reliability of flood protection. The setback levee will be constructed to the same height as the existing San Joaquin River levee at the Paradise Weir. Only the landside of the levee along Paradise Cut will be slightly raised to match the elevation of the existing San Joaquin River levee. This is necessary to avoid reducing the flood protection of downstream properties on Paradise Cut, since the transitory storage proposed to be held within the project area will be at an elevation equivalent to the San Joaquin River elevation, and this elevation is several feet higher than the existing levee along Paradise Cut, due to the dropping hydraulic grade line experienced by flows within Paradise Cut. Separately, the project is not considered growth inducing, as it will not result in the removal of any land from the 100-year floodplain.

3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

Use of rip-rap is proposed for erosion control of the proposed setback levee, degrade of sections of the existing Project levee, the drainage structure, and for land-side protection of the Project levee along the eastern bank of Paradise Cut. Rip-rap placement on the proposed setback levee is shown on the previously mentioned Figure 7. Rip-rap locations for the existing Project levee are shown on

Figure 8 along with a cross-sectional view of the proposed rip-rap placement on Figure 9. The proposed levee degrade sections and drainage structure are shown on figures 10 and 11, including rip-rap placement. The potential benefits and impacts of rip-rap use are shown in the following table.

TABLE – Benefits and Impacts of Rip-rap			
Location	Rip-rap Placement	Benefits	Impacts
Setback levee	Top five-feet of levee southerly land-side face	Protect inside levee section against wave-action erosion	Added project cost
Project levee on Paradise Cut	Top five-feet of levee easterly land-side face	Protect inside levee section against wave-action erosion	Added project cost
Project levee degrade sections on San Joaquin River	Degrade section entrance, exit, and flow area	Protect degrade section against erosion	Added project cost
Drainage structure	Structure entrance, exit, and flow area	Protect entrance and exit against erosion	Added project cost

There is no dredging-component for the proposed project.

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site?

The proposed project will impact future flooding on site by guaranteeing that the site will flood with the 10 year AEP storm. Off site, the project will provide improved flood protection through improved reliability. Improved reliability will result from the installation of an approximate 50-year AEP setback levee and removal of exposure to erosion-causing hydrodynamic forces for this setback levee. As described in Section IV.A.2., historic flooding of Stewart Tract occurred in 1938, 1950, and 1997. Records show that levee failure, adjacent the proposed project site, occurred in the 1950 and 1997 flood events. Setting back of the flood protection levee approximately 1,500 to 3,000 feet from the main river channel will result in less exposure to erosion forces on the levee. Furthermore, a current standard levee will provide improved reliability over the existing older levee system. The proposed project will have a negligible effect (impact) on off-site flooding beyond RD 2107 and Stewart Tract as noted in Section IV.C.2.

2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services?

The proposed project will have no effect on evacuation routes, emergency services, or demands for emergency services in the immediate project area. The project may have a beneficial effect on emergency service demand by lowering the potential for impact due to flooding on the community of Mossdale and all of the non-project portion of Stewart Tract. In addition, the flood of 1997 closed both rail lines within the area to be protected. Therefore, to the extent that emergency services are supported by rail traffic, the proposed project will provide

a positive benefit to emergency services in that it will provide improved flood protection to these two rail lines.

3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP).

FEMA NFIP specifies that habitable structures should not be constructed within a 100-year floodplain. The County's floodplain management ordinance is consistent with this standard. Other than the residence located adjacent to the levee, the property is currently located within a 100-year floodplain, and there are no new habitable structures proposed within a 100-year floodplain, so the project complies with FEMA's NFIP and the local agency's flood ordinance.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project?

The assessed value of existing non-highway, non-railroad structural improvements that will be protected is \$3.53 million. Twenty-nine parcels within the project area were identified with improvements, including twenty-one with building structures, six with industrial pump/ pipe systems, and the remaining two parcels showing listed improvements but non-visible upon inspection. Non-assessed structural improvements that would benefit from the proposed flood protection system include approximately 1-mile of the single-track Union Pacific Railroad main rail line, approximately 1 ¼-mile of the single-track Southern Pacific Railroad main rail line and approximately 1-mile of federal Interstate Highway 5.

The assessed value is based on 1999 dollars and has been obtained based on physical inspection by the State of California Department of Water Resources Division of Lands and Right Away and in part from the San Joaquin County Tax Assessor Office. The basis for this assessment includes a table (Attachment A1) and associated photographs (Attachment A2).

2. What is the estimated replacement value of any flood control facilities or structures protected by the project?

The flood of 1997 subjected the levees in RD 2107 and in Stewart Tract to wave erosion from the land side of the levee, due to the standing water within this area. This risk was recognized by FEMA and it was determined to place protective sheeting along miles of the land side of the inundated levees. There remained a risk of failure of these levees from wave erosion from the land side water. By

reducing the potential for these areas to flood, the levees surrounding RD 2107 and Stewart Tract will be protected from this risk.

The estimated replacement value for flood control structures is therefore \$23.8 million. This includes construction of the following control structures/ elements:

- *2 miles of levees surrounding RD 2107 @ \$1.7 million per mile*
- *12 miles of levees surrounding Stewart Tract @ \$1.7 million per mile*

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

A. (340x F_w points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.

Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project?

The project site and vicinity is of significant ecological importance. The existing levee area adjacent the Paradise Cut channel serves as a known habitat for the riparian brush rabbit and could be habitat for a number of other mammals, including several species of bats, birds, reptiles, and invertebrates. Additionally, the levee area could be habitat for a number of rare or considered rare or endangered species of plants.

The Union Pacific Railroad corridor, located on the northerly segment of the proposed project area, could also be habitat for similar species of plant and animal as a result of the existing trees, shrubs and undergrowth.

2. Is the site adjacent to any existing conservation areas?

The site is not adjacent to any existing conservation area.

3. Describe any plans for aquatic restoration resulting in in-stream benefits.

The creation of shaded riverine aquatic (SRA) habitat along the San Joaquin River will benefit the migrating fish in this river by providing

shade in the summer months. Provision of SRA habitat is typically difficult to provide, due to the prohibition by the Army Corp of Engineers against placing new trees on Project levees. Degrading of the levee to retain only the 10-year EAP is anticipated to allow placement of trees along the waterline of the existing levee, allowing the provision of SRA habitat.

4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)?

Unknown.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:

- i. areas of unique ecological and/or biological diversity?

Unknown.

- ii. vegetative complexity either horizontally or vertically?

Unknown.

2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc.
3. Describe any superior representative examples of specific species or habitats.
4. Does the site contain a high number of species and habitat types? List and describe.
5. Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration?

A3. Ecological importance of species and habitat types (100)

1. Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area.
2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project?

3. Describe any existing habitats that support any sensitive, rare, “keystone” or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project?
4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved?

The degraded San Joaquin River levee is an excellent location to provide SRA habitat. Approximately 3,300 linear feet of SRA will be provided, by creating a 3,800 foot sinuous line of native trees of varying age. Habitat to be created is similar to that in Figure 13.

A4. Public benefits accrued from expected habitat improvements (60)

1. Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc.

The site is not anticipated to provide public viewing areas, as the few residences and the farming operation are anticipated to remain active.

2. Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans?
3. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features. Do any surrounding areas detract from habitat values on the site?

The immediately adjacent area does not include large urban areas. In fact, the site is rather remote. However, the general area of San Joaquin County is rapidly urbanizing, and this may be a rare opportunity to provide habitat restoration on an unspoiled section of San Joaquin River frontage. Land on the opposite bank of San Joaquin River is also being farmed and is within a 100-year floodplain, limiting the potential for urbanization. The existing levee is bare, but will have SRA habitat vegetation added along the San Joaquin River frontage.

4. Describe compatibility with adjacent land uses.

The site is effectively a peninsula, surrounded by Paradise Cut and San Joaquin River on three sides, with the Union Pacific Railroad on the remaining side. Uses across the UPRR tracks include farming

operation and a sand mining operation being performed at the bottom of a ground water lake. These uses will remain unobtrusive to the proposed farming and wildlife uses of the site, and the project site will remain compatible with existing uses across the tracks.

A5. Viability/sustainability of habitat improvements (40)

1. Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values?

Since the site will remain in agricultural use, the future operation activities would be consistent with a farming operation. Monitoring and maintenance activities will be limited to that needed to establish the pond habitat landscaping and the trees for the SRA habitat.

2. Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)?

The proposed SRA habitat is similar to SRA habitat that exists south of the site along the San Joaquin River, as well as similar to the Riparian Brush Rabbit habitat located along Paradise Cut adjacent to the site

3. Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition.

The watershed upstream is all adjacent to land within the 100-year floodplain. This adjacent land is likely to remain in agricultural operations for the foreseeable future. The watershed itself within the limits of the levee system is relatively undisturbed and undeveloped.

4. Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations, geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.)

B. (340x F_a points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

1. Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.
2. Are projected agricultural practices compatible with water availability?

The land has been, and is proposed to remain, in farming. Water is currently taken via existing pumps from the San Joaquin River. These pumps would remain and are adequate to continue the farming operation. Existing pumps on this section of the San Joaquin River provide water to the project parcels, as well as to a parcel on the west side of UPRR adjacent to Paradise Cut. Water is also pumped into Paradise Cut for use by the Paradise Mutual Water Company to irrigate lands on the south side of Paradise Cut.

3. Does the site come with riparian, mineral, and/or development rights?

The site comes with riparian water rights. Other than the few existing homes that will remain protected from flood, there are no existing specific development rights on the project land.

4. Is the site large enough to sustain future commercial agricultural production?

The site is currently being commercially farmed, and will remain in commercial agricultural operation.

5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation?

There are no deed restrictions considered adverse to agricultural land conservation. Beneficial deed restrictions include adjacency to the San Joaquin River and its riparian availability of irrigation water.

6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?

The site is currently cultivated. Irrigation facilities are more extensive on the Pishos parcel, but are adequate for cultivation on the Alegre parcel as well.

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services?

The area is agricultural and possesses necessary market infrastructure and agricultural support services.

2. Are surrounding parcels compatible with commercial agricultural production?

Yes.

3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives?

The County of San Joaquin is highly supportive of agricultural enterprises.

4. Describe any present or planned future environmentally friendly farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control).

The project site is extremely flat, and is therefore subject to very minimal erosion. Tail water unused by the farming operation is returned to the river for downstream use. The existing ponds on the Alegre parcel are avoided by the farming operation.

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract?

The Alegre parcel is currently under a Williamson Act contract, but the Pishos parcel is not.

2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site?

The immediately adjacent area does not include large urban areas. In fact, the site is rather remote. However, the general area of San Joaquin County is rapidly urbanizing, and this may be a rare opportunity to provide habitat restoration on an unspoiled section of San Joaquin River frontage. Land on the opposite bank of San Joaquin River is also being farmed and is within a 100-year floodplain, limiting the potential for urbanization. The existing levee is bare, but will have SRA habitat vegetation added along the San Joaquin River frontage.

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses.

The only adjacent land use is the Union Pacific Railroad property and the adjacent rural residential parcel. Neither use is anticipated to change. Across the railroad parcel is a sand mining operation, and this operation is anticipated to continue for years. Ultimately, closure of this operation is projected to result in an aquaculture lake, with potential minor amounts of retail adjacent to Mossdale Road. The project is not anticipated to have any effect upon the adjacent uses.

4. Describe the relationship between the project site and any applicable sphere of influence.

The project site is within the County of San Joaquin, and is not within the Sphere of Influence of any adjacent City.

5. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation.

The County of San Joaquin General Plan makes a strong commitment to long-term agricultural conservation.

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?

Consistent with B3.5, The County of San Joaquin General Plan makes a strong commitment to long-term agricultural conservation

2. What is the present zoning and is the parcel developable?

The parcels are not currently developable. Development would require removal from the 100-year floodplain, provision of utilities and construction of improved access to public roadways, none of which are readily available.

3. Is there an effective right to farm ordinance in place?

The County has a right to farm ordinance in place, as does the adjacent City of Lathrop.

4. Is the project description consistent with the policies of the Local Agency Formation Commission?

The project is consistent with LAFCO policies.

5. Will the project as proposed impact the present tax base?

Any effect upon the present tax base, based upon a possible reduction in land value upon review by the County Assessor of the reduced value of land with flood easement in place, would likely be minimal.

B5. Quality of agricultural conservation measures in the project (50)

1. For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site.

Existing site features include oak trees to be retained behind the setback levee, as well as existing ponds on the Alegre parcel.

2. What are the present biological/ecological values to wildlife? How are these values affected by the proposed project?

The existing ponds provide habitat to wildlife, and these ponds will be retained.

3. Is the project proponent working with any local agricultural conservancies or trusts?

No, there is no need for an agricultural conservancy since the property is of adequate size to allow for commercial agricultural activity.

4. Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation?

Yes. As noted above, the remaining land to be retained for farming is of adequate size to support commercial agricultural operation. For this reason, there is no need to place the land into public stewardship.

5. Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future?

As noted earlier, non-agricultural use of this property would require removal from the 100-year floodplain. If this were to occur, there would be pressure to convert the property to non-agricultural uses.

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost	\$7,000,000
Amount of FPCP Grant Funds Requested	\$5,000,000
Amount of Local Funds Contributed	\$1,000,000
Amount of In-kind Contributions	
Additional Funding Sources (habitat grants)	<u>\$1,000,000</u>

Number of persons expected to benefit 567,000*

Flood Protection Corridor Funds per person benefited.* \$8.81

(* Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)

**Persons benefiting calculated from 165 acres of melons at 421 cwt/ac market at 112 lbs/cwt, at 13.7 lbs per capita consumption*

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit?

No.

2. Does the project fence cattle out?

No, there are no cattle in the project vicinity.

3. Does the project pass water over newly developed fresh water marsh?

No.

4. Does the project trap sediments?

Yes, the project will trap sediment before it is returned to the San Joaquin River during periods of inundation.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations? Explain.

No.

2. Are historical or cultural resources impacted by the project? Explain.

No.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal?

The project requires technical capabilities to process environmental documents and design documents to provide for construction of the project's levee and habitat improvements, as well as hydraulic and hydrologic modeling expertise. These abilities are readily available from consultants prepared to work with the project team.

2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases?

Details of the monitoring and reporting mechanisms will be supplied in consultation with the consultants hired if this application is approved. We will comply with all reporting provisions of the FPCP documentation.

3. Please outline your team's management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have.

Again, the team will consist of the Reclamation District Trustees for oversight, and a team of consultants ready to complete the project. Grants managed by RD 2107 include FEMA grants for repair of levees and repayment of flood fights.

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds.

Stakeholders include all properties to be provided with improved flood protection, as well as the two property owners of the subject parcels. Final land cost is being negotiated at this time. Cost to be incurred that are beyond the grant funds will come from a combination of these stakeholders and the possibility of additional grants for habitat restoration.

2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San

Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future.

The project is consistent with the major ongoing activities and programs in the region. Specifically, the project will advance the desire for:

- *Providing setback levees to add channel carrying capacity*
- *Improving reliability of levees without increasing their height*
- *Creating off-stream transitory storage*
- *Providing Shaded Riverine Aquatic habitat along San Joaquin River levees*
- *Preserving long term farming operation with the addition of flood easements without having to purchase the land in fee*

3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?

No, this project is independent of any other project.

4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate?

In cooperation with DWR, this project proposal was created to further the goals of many ongoing programs in the Delta area. It is the result of cooperation between a non-profit (RD 2107), land owners who will sell their land, adjacent land owners who are receptive to the proposal, and the properties to be further protected by the more reliable levees. The project also directly reflects the County of San Joaquin's commitment to long-term agricultural operations.

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on February 14, 2003 to:

Bonnie Ross at bross@water.ca.gov